

REMARKS

In view of the preceding amendments and the comments which follow, and pursuant to 37 C.F.R. § 1.111, amendment and reconsideration of the Official Action of April 29, 2004 is respectfully requested by Applicant.

Summary

Claims 1 – 6, 16 and 17 stand rejected. Claims 1 – 3, 6 and 16 have been amended. The amendments find support in the specification. No new matter has been introduced as a result of these amendments. Claims 1 – 6, 16 and 17 are pending following entry of the present amendments and consideration of the following remarks.

Objections

The Examiner has objected to claims 2 and 3 because of informalities related to the duplication of similar language found in claim 1. As such, Applicants have amended claims 2 and 3 to remove the informalities by deleting the phrasing “the width in the track width direction of the gap layer is smaller than or equal to the width in the track width direction of the upper pole layer”. Accordingly, Applicants therefore respectfully request that the objections to claims 2 and 3 be withdrawn.

Rejections under 35 U.S.C. § 112

The Examiner has rejected claims 1 – 6, 16 – 17 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. As such, Applicants have amended the rejected claims as follows:

- a) Regarding claims 1 and 6, the term “optionally” has been deleted.
- b) Regarding claims 1 and 16, the phrasing “toward the back” has been deleted.
- c) Regarding claim 6, the phrasing “has a width of 0 to 4 μm ” has been replaced with the phrasing “has a width of 1 to 4 μm ”. This amendment finds support in the specification, namely on page 46, lines 22 to 24.

Therefore, Applicants therefore respectfully request that the rejections of claims 1, 6, 16 and 17 under 35 U.S.C. § 112 be withdrawn.

Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1 – 4, 6 and 16 – 17 under 35 U.S.C. § 102 (b) as being anticipated by Applicant's Admitted Prior Art (AAPA), namely Figs. 24 – 32. As amended, the pending claim 1 recites that "a width in a track width direction of the gap layer is smaller than a width in the track width direction of the upper pole layer when viewed from the surface facing the medium."

Thus, as claimed, in a track width direction the gap layer is smaller than the upper pole layer as when viewed from the surface facing the medium. This claimed feature is not disclosed or suggested in the AAPA. In contrast, the AAPA discloses that "if a decrease of the track width Tw1 to less than $0.4\ \mu\text{m}$ is attempted by etching the sides 28a and 28b using ion milling, the track width Tw1 in the track width direction of the gap layer 26 does not become smallest and, as shown in FIG. 33, the width in the track width direction of the upper pole layer 27 formed on the gap layer 26 becomes smallest." Hence, Applicants submit the AAPA section, found on page 6, lines 14 to lines 29 and referred to by the Examiner, teaches away from the above claimed feature, which renders claim 1 patentable over the AAPA.

In addition, this distinguishable feature of the gap layer width in relation to the upper pole layer allows for a concentration of the recording magnetic field to be guided from the upper core layer to the upper pole layer in the magnetic gap (See page 9, lines 3 – 6)

Further, as amended independent claim 16 now recites a similar gap width feature as in claim 1, and accordingly Applicants submit that claim 16 is also allowable. Claims 2 – 4, 6 and 17 which are respectively dependent on claims 1 and 16 are thus allowable. As such, Applicants therefore respectfully request that the rejections of claims 1 – 4, 6 and 16 – 17 under 35 U.S.C. § 102(b) be withdrawn.

Rejections under 35 U.S.C. § 103

The Examiner has next rejected claims 5 and 6 under 35 U.S.C. § 103 (a) as being unpatentable over AAPA. The pending claims 5 and 6 are dependent on claim 1, shown above to be allowable over the AAPA.

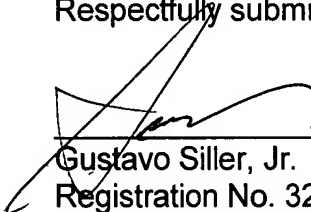
Further, Applicants submit that based on the demonstrated patentability of claim 1 over the AAPA, the claimed dimensions of claims 5 and 6 do point out respective features that perform and operate differently than the AAPA. Therefore, Applicants submit that claims 5 and 6 are allowable, and respectfully request that their respective rejections under 35 U.S.C. § 103(a) be withdrawn

Conclusion

Applicants submit that this application is now in condition for allowance, and favorable reconsideration of this application in view of the above amendments and remarks is respectfully requested. Allowance of claims 1 – 6 and 16 - 17 at an early date is earnestly solicited. If, there are fees due, Applicants request that this paper constitutes any necessary petition and authorizes the Commissioner to charge any underpayment, or credit any overpayment, to Deposit Account No. 23-1925.

If the examiner finds that there are any outstanding issues which may be resolved by a telephone interview, the Examiner is invited to contact the undersigned attorney at the below listed number

Respectfully submitted,



Gustavo Siller, Jr.
Registration No. 32,305
Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200